

Scotland England Green Link 2 - English Onshore Scheme

Environmental Statement: Volume 2

Chapter 9: Archaeology and Cultural Heritage

March 2022

For: National Grid Electricity Transmission

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9. Archaeology and Cultural Heritage

9.1 Introduction

This chapter of the Environmental Statement (ES) presents the results of baseline studies and the assessment of the potential impacts of the English Onshore Scheme on archaeology and cultural heritage. The chapter summarises the regulatory and policy framework related to archaeology and cultural heritage, the methodology followed for the assessment and provides an overview of the existing baseline conditions. The assessment has identified the likely significant impacts to arise during the construction or operational phases of the English Onshore Scheme and identifies any mitigation necessary to avoid or reduce these impacts where possible.

The following figures have been prepared in support of the archaeology and cultural heritage assessment:

- Figure 9-1: Study Area and Known Archaeology Plans;
- Figure 9-2: Cultural Heritage Field Numbers;
- Figure 9-3: Areas of Heritage Impacts on Known Heritage Assets; and
- **Figure 9-4:** Zone of Theoretical Visibility at the Converter Station Site for Designated and Non-Designated Assets.

This chapter should be read in conjunction with the following technical appendices, available in ES Volume 3:

- Appendix 9A Known Heritage Assets Table;
- Appendix 9B Photographs;
- Appendix 9C Aerial Photographic and LiDAR Report;
- Appendix 9D Geophysical Survey Report;
- Appendix 9E Metal Detector Survey; and
- Appendix 9F Non-designated Built Heritage Baseline Information.

Archaeology and cultural heritage impacts are also interrelated with **Chapter 8: Landscape and Visual Amenity**.

9.2 Planning Policy and Applicable Legislation

9.2.1 Introduction

This section sets out the legislative and policy framework for archaeology and cultural heritage in the UK. It provides an overview of the legislation from the national planning policy down to the local planning authority policy that will have direct relevance to the English Onshore Scheme.

9.2.2 Legislation

9.2.2.1 The Ancient Monuments and Archaeological Areas Act (1979)

The Ancient Monuments and Archaeological Areas Act (Ref 9-1) is the central piece of legislation that protects the archaeological resource. Scheduled monuments are protected under the act, which imposes the requirement to obtain consent from the relevant authority for any demolition, repair or alteration works that might affect these nationally important heritage assets.

The first section of the Act requires the Secretary of State for Digital, Culture, Media and Sport to maintain a schedule of nationally important sites. For the purposes of the Act, a monument is defined as:

"a) any building, structure or work, whether above or below the surface of the land, and any cave or excavation; b) any site comprising the remains of any such building, structure or work or of any cave or excavation; and c) any site comprising, or comprising the remains of, any vehicle, vessel, aircraft or other moveable structure or part thereof which neither constitutes nor forms part of any work which is a monument as defined within paragraph a) above; d) and any machinery attached to a monument shall be regarded as part of the monument if it could not be detached without being dismantled' (Section 61 (7))."

The Act further defines an ancient monument as:

"any Scheduled Monument; and any other monument which in the opinion of the Secretary of State is of public interest by reason of the historic, architectural, traditional, artistic or archaeological interest attaching to it' (Section 61 (12))."

A set of criteria, defined as survival/condition, period, rarity, fragility/vulnerability, diversity, documentation, group value and potential, assist in the decision-making process as to whether an asset is deemed of national importance and best managed by scheduling.

9.2.2.2 The Planning (Listed Buildings and Conservation Areas) Act (1990)

The Act (Ref 9-2) sets out the principal statutory provisions which must be considered in the determination of any application affecting either listed buildings or conservation areas.

Section 66 of the Act states that in considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. By virtue of Section 1(5) of the Act a listed building includes any object or structure within its curtilage.

Section 72 of the Act states that special attention shall be paid to the desirability of preserving or enhancing the character or appearance of conservation areas.

9.2.2.3 The Marine and Coastal Access Act (2009)

This Act (Ref 9-3) introduced marine planning, with the aim of ensure a sustainable future for seas around the UK. The first step in marine planning was the development of The Marine Policy Statement (MPS) (Ref 9-4). The MPS was adopted in March 2011 and sets the framework and high-level policy context for the marine planning system, in order to deliver the UK Government's vision of "clean, healthy, safe, productive and biologically diverse oceans and seas". The MPS sets policy objectives for key offshore activities, and provides the context and considerations that should be taken into account in the next stage of marine planning (regional level inshore and offshore Marine Plans). Marine Plans aim to inform and guide decisions by regulators managing the development of industry in marine and coastal areas, while conserving and enhancing the environment. The first two Marine Plans, for the East Inshore and East Offshore marine areas, were adopted in April 2014 (Ref 9-5) and are of relevance to the intertidal elements of the English Onshore Scheme.

Policy SOC 2 (Heritage Assets) states that proposals must not compromise/harm elements that contribute to the significance of a heritage asset and any such harm must be minimised or mitigated against.

9.2.2.4 Protection of Military Remains Act (1986)

The Act applies to any aircraft which has crashed (whether before or after the passing of the Act) while in military service, and states that a license must be obtained from the Ministry of Defence (MOD) to disturb any such site (Ref 9-6). At least one crashed aircraft has been recorded within the planning application boundary, and as a result this Act applies to the current scheme.

9.2.3 National Policy

9.2.3.1 Introduction

The National Planning Policy Framework (NPPF) and National Policy Statements (NPS) are material considerations in the determination of applications for development but does not change the statutory

status of the locally prepared plans as the starting point for decision making for Town and Country Planning Act applications. This is detailed further in **Chapter 4: Planning Policy Context**.

9.2.3.2 The Overarching National Policy Statement for Energy (EN-1) (2011)

The EN-1 policy (Ref 9-7) statement sets out the national policy for energy infrastructure. It details the need for new significantly electricity and gas infrastructure projects, details assessment principles and also the impacts forthcoming proposals will have on the environment. The Historic Environment is detailed within Section 5.8, detailing the description of both non-designated and designated heritage assets (sections 5.8.2-4); describing the need for appropriate Desk Based Assessments in the event of potential heritage asset impact (sections 5.8.9-10); a consideration of impacts of proposed developments on heritage assets (section 5.8.12) with the presumption in favour of conservation (section 5.8.14) of assets as well as their setting (sections 5.8.18-19). Preservation of heritage assets through excavation and written record when impact/change is unavoidable is detailed in sections 5.8.19-22.

The Draft Overarching National Policy Statement for Energy (EN-1) (Ref 9-8) represents and update of the 2011 document, and sets out potential impacts resulting from energy schemes on the Historic Environment in Section 5.9 of the document. Paragraphs 5.9.2-5.9.8 defines the term 'Historic Environment' and examines the value/significance of both designated and non-designated assets, with Paragraphs 5.9.10-5.9.16 discusses assessment requirements. The document goes on to set out the issues that should be examined in the decision-making process (Paragraphs 5.9.17-5.9.29), and notes that recording assets is not as valuable as retaining heritage assets (Paragraph 5.9.30), but where schemes will require the removal of heritage assets they should be subject to excavation/recording, with results being published publicly (Paragraph 5.9.31). Finally Paragraphs 5.9.32-5.9.35 notes that mitigation requirements should be agreed to avoid damage to assets during construction, as well as the loss of previously unrecorded assets.

The Draft National Policy Statement for Electricity Networks Infrastructure (EN-5) (Ref 9-9) notes the desirability to, where possible, preserve sites of historic or archaeological interest, and undertake suitable mitigation where assets cannot be preserved (Paragraph 2.2.5). it also highlights the role setting plays, and the impact undergrounding of new cables can have on heritage assets (Paragraph 2.11.14).

9.2.3.3 National Planning Policy Framework (2021)

The NPPF (Ref 9-10) sets out the Government's planning policies for England and how these should be applied to contribute to the achievement of sustainable development. The NPPF requires plans, both strategic and non-strategic, to make provision for the conservation and enhancement of the historic environment (paragraphs 20d and 28). Section 16 (paragraphs 189-208) of the NPPF sets out a series of policies that are a material consideration to be taken into account in development management decisions in relation to the heritage consent regimes established in the Ancient Monuments and Archaeological Areas Act 1979 and the Planning (Listed Buildings and Conservation Areas) Act 1990.

The NPPF sets out the importance of being able to assess the significance of heritage assets that may be affected by a development proposal. Significance is defined in Annex 2 as 'the value of an asset because of its heritage interest. This interest may be archaeological, architectural, artistic or historic and can extend to its setting'. The setting of a heritage asset is defined in Annex 2 as 'the surroundings in which a heritage asset is experienced'. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the asset's importance and no more than is sufficient to understand the potential impact of the proposal on their significance (paragraph 194). Similarly, there is a requirement on local planning authorities to identify and assess the particular significance of any heritage asset that may be affected by a proposal; and that they should take this assessment into account when considering the impact of a proposal on a heritage asset (paragraph 195).

In determining planning applications, local planning authorities should take account of the following three points:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation:
- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- the desirability of new development making a positive contribution to local character and distinctiveness (paragraph 197).

Paragraphs 199 to 202 of the NPPF introduce the concept that heritage assets can be harmed or lost through alteration or destruction or development within their setting. This harm ranges from less than substantial through to substantial. With regard to designated assets, paragraph 199 states that great weight should be given to an asset's conservation and the more important the asset, the greater the weight should be. This is irrespective of the level of harm to its significance as a result of any proposals. Distinction is drawn between those assets of exceptional interest (e.g. grade I and grade II* Listed Buildings), and those of special interest (e.g. grade II Listed Buildings). Any harm or loss of heritage significance requires clear and convincing justification, and substantial harm or loss should be wholly exceptional with regard to those assets of greatest interest (paragraph 200).

In instances where development would cause substantial harm to or total loss of significance of a designated asset, consent should be refused unless that harm or loss is 'necessary to achieve substantial public benefits that outweigh that harm or loss' (paragraph 201). In instances where development would cause less than substantial harm to the significance of a designated asset, the harm should be weighed against the public benefits of the proposal including its optimum viable use (paragraph 202). In relation to non-designated assets a balanced judgment is required taking into account the scale of harm or loss and the significance of the asset (paragraph 203). Distinction is made between those non-designated assets of archaeological interest which are demonstrably of equivalent significance to Scheduled Monuments; the latter should be considered against polices for designated heritage assets (footnote 68).

9.2.4 Local Policy

The local planning policy which is relevant to archaeology and cultural heritage includes policies held within the following local plans:

- East Riding Local Plan, 2016 (East Riding of Yorkshire Council) (Ref 9-11);
- Selby District Council Core Strategy, 2013 (Ref 9-12); and
- Selby Local District Plan, 2005 (Ref 9-13).

The Local plan policy which is relevant to archaeology and cultural heritage comprises the following:

- East Yorkshire of Yorkshire Local Plan, 2016 (Ref 9-11):
 - Policy ENV2 protecting the character and identity of individual settlements by maintaining their physical separation where there is a risk of coalescence;
 - Policy ENV3 –protecting and conserving both designated and non-designated heritage assets including archaeological sites;
 - Policy A1: Beverley and Central sub area (part C) protecting and enhancing the environment;
 - Policy A2: Bridlington Coastal Sub Area: (part C) protecting and enhancing the environment;
 - Policy A3: Driffield and Wolds Sub Area (part C) protecting and enhancing the environment; and
 - Policy A3: Goole and Humberhead Levels sub area (part C) protecting and enhancing the environment.
- Selby District Council Core Strategy Local Plan (2013) (Ref 9-12):
 - Policy SP18 Protecting and Enhancing the Environment
- Selby Local District Plan, 2005 (Ref 9-13):

- ENV25 Developments affecting Conservation Areas;
- ENV27 Developments affecting the setting of Scheduled Monuments or other nationally important sites; and
- ENV28 Development affecting archaeology.

9.2.5 Policy Guidance

9.2.5.1 Planning Policy Guidance (PPG)

The PPG (Ministry of Housing, Communities and Local Government) provides further advice and expands on the policy outlined in the NPPF (Ref 9-14).

It expands on terms such as 'significance' and its importance in decision making. The PPG clarifies that applicants are expected to an analysis of the significance of heritage assets affected by a proposed development, including any contribution made by their setting and where relevant how this analysis has informed the development of the proposed development (Paragraph: 009, Reference ID: 18a-009-20190723, Revision Date: 23.07.2019).

The PPG states that in relation to setting, views of or from an asset are an important part in the assessment of impacts on setting, however, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust, smell and vibration from other land uses in the vicinity and by our understanding of the historic relationship between places. The assessment of any application which may affect the setting of a heritage asset may also need to consider the implications of cumulative change (Paragraph: 013, Reference ID: 18a-013-20190723, Revision Date: 23.07.2019).

The PPG discusses how to assess harm to heritage assets, noting that there may be no harm, less than substantial harm, or substantial harm. Paragraph 18 states that within each category of harm the extent of harm may vary, and this should be clearly articulated. In general terms, substantial harm is a high test, so it may not arise in many cases. It highlights that what matters in assessing whether a proposal might cause harm is the impact on the significance of the heritage asset. That significance derives not only from the asset's physical presence but also from its setting. Wherever potential harm to designated heritage assets is identified, it needs to be categorised as either less than substantial harm or substantial harm (which includes total loss). The category of harm that applies should be explicitly identified. Within each category of harm, the extent of the harm may vary and should be clearly articulated (Paragraph: 018, Reference ID: 18a-018-20190723, Revision Date: 23.07.2019).

Paragraph 19 directs attention to paragraph 201 of the NPPF regarding harm to conservation areas. It states that justification for the loss of a building within a conservation area should be proportional to its significance and the contribution of that significance to the conservation area as a whole.

The NPPF indicates that the degree of harm should be considered alongside any public benefits that can be delivered by development. The PPG states that these benefits should flow from the proposed development and should be of a nature and scale to be of benefit to the public (not just a private benefit) and would include securing the optimum viable use of an asset in support of its long-term conservation (Paragraph: 020, Reference ID: 18a-020-20190723, Revision Date: 23.07.2019).

9.2.6 Technical Guidance

9.2.6.1 Historic England Guidance

Historic England has published a series of Good Practice Advice (GPA) of which those of most relevance to this appraisal are GPA2 - Managing Significance in Decision-taking (March 2015, (Ref 9-15) and GPA3 - The Setting of Heritage Assets (2nd Edition) (December 2017, (Ref 9-16).

GPA2 emphasises the importance of having a knowledge and understanding of the significance of heritage assets likely to be affected by the development and that the "first step for all applicants is to understand the significance of any affected heritage asset and, if relevant the contribution of its setting to its significance" (paragraph 4). Early knowledge of this information is also useful to a local planning authority in pre-application engagement with an applicant and ultimately in decision making (paragraph 7).

GPA3 provides advice on the setting of heritage assets. Setting is as defined in the NPPF and comprises the surroundings in which a heritage asset is experienced. Elements of a setting can make positive or negative contributions to the significance of an asset and affect the ways in which it is experienced. Historic England state that setting does not have a boundary and what comprises an asset's setting may change as the asset and its surrounding evolve. Setting can be extensive and particularly in urban areas or extensive landscapes can overlap with other assets. The contribution of setting to the significance of an asset is often expressed by reference to views and the GPA in paragraph 11 identifies those views such as those that were designed or those that were intended, that contribute to understanding the significance of assets.

Historic England published recently Advice Note 12 (Ref 9-17) (HE 2019) which outlines a recommended approach to assessing the significance of heritage assets in line with the requirements of NPPF. It includes a suggested reporting structure for a 'Statement of Heritage Significance,' as well as guidance on creating a statement that is proportionate to the asset's significance (heritage value) and the potential degree of impact of a Proposed Development.

9.2.6.2 Chartered Institute of Archaeologists

The baseline study has been undertaken in accordance with guidance published by the Chartered Institute for Archaeologists (CIfA), with specific regard to the Standard and Guidance for Historic Environment Desk-based Assessment (Ref 9-18) and the Code of Conduct (Ref 9-19).

9.2.6.3 Institute for Environmental Management & Assessment

Principles of Cultural Heritage Impact Assessment in the UK (IEMA 2021) is a guide to good practice in cultural heritage impact assessment published jointly by the Institute of Environmental Management and Assessment (IEMA), the Institute of Historic Building Conservation (IHBC) and the ClfA (Ref 9-20). The document provides guidance on understanding cultural heritage assets and evaluating the consequences of change.

Understanding cultural heritage assets is split into three stages: Description, Significance and Importance. The description arrives at a factual statement that establishes the nature of the asset. The heritage values of the asset are then analysed (the guidance stresses that these include but are not limited to aesthetic, historic, scientific, social or spiritual values) and a statement of cultural significance given. Finally, the importance of the asset is assessed and a conclusion drawn as to the level of protection that the asset merits in planning policy and cultural heritage legislation. The guidance notes that unlike cultural significance importance is scaled and can be described as high, medium or low.

The process of evaluating the consequences of change is split into three stages: Understanding Change, Assessing Impact and Weighting the Effect. All aspects of a proposal that have the ability to change a cultural heritage asset or its setting are first explained. If these changes affect the cultural significance of the asset, the resulting impact, which could be positive or negative, and its magnitude is then assessed. The effect is a combination of the magnitude of the impact and the heritage asset's importance, and the scale of the effect will determine by how much the issue should influence the design of the proposal and whether the proposal is acceptable and will be permitted.

9.3 Approach to Assessment

9.3.1 Introduction

This section describes the approach to the identification and assessment of impacts resulting from the construction and operation of the English Onshore Scheme on archaeology and cultural heritage.

9.3.2 Summary of Consultation

9.3.2.1 Scoping Opinion Review

Table 9-1 summarises the issues raised in the scoping opinion in relation to archaeology and cultural heritage and outlines how and where this has been addressed in subsequent chapters of the ES. A copy of the scoping opinion is included in **Appendix 5-B**.

Table 9-1: Scoping Opinion (Archaeology and Cultural Heritage)

Consultee	Summary of comment	How and where addressed
Humber Archaeology Partnership (HAP)	Noted that the route largely followed the Yorkshire Humber Carbon Capture Storage (CCS) pipeline route previously proposed by National Grid Carbon (NGC), and that the route passes through a landscape rich in archaeology, but especially Iron Age and Romano-British Remains. Confirmed that intensive assessment using both desk-based research, along with information obtained from geophysical survey, and metal detecting survey should be undertaken. Other schemes that are more advanced should also be reviewed to examine potential for previously unrecorded heritage assets, as well as the mitigation strategies developed. Consultation should be undertaken with stakeholders including Local Authority Conservation Officers and Historic England regarding impacts on setting. Temporary construction impacts should also be assessed. For the impact assessment, Grade II listed buildings and Registered Parks and Gardens should be considered High Value assets and not Medium Value assets.	Full route was assessed using data from sources set out in Section 9.3.3. Geophysical survey was undertaken in all areas where access was agreed, and where ground conditions allowed (see Appendix 9D for full report). It was agreed through additional consultation with HAP that approximately 20 km of the route would be targeted for metal detecting survey at this stage, and the remainder of the route would be detected (if required by HAP and NYCC) as part of the pre-construction works (see Appendix 9E for full report). A review of LiDAR and aerial photographic data was also undertaken (Appendix 9C). Consultation was undertaken with all relevant stakeholders, with both temporary and permanent impacts assessed. Regarding the value of Grade II listed buildings and Registered Parks and Gardens, as outlined in Section 9.3.4 of this chapter, Table 9-3 is a guide that is used alongside professional judgement, assessment of significance and consultation to assign heritage values to assets. The assets are not automatically ascribed a value on the basis of their level of designation. NPPF (Ref 9-10) paragraph 200 makes a distinction between Grade II listed buildings and 'assets of the highest significance' (i.e. scheduled monuments, protected wreck sites, grade I and II* listed buildings grade I and II* registered parks and gardens and World Heritage Sites). This distinction is built into Table 9-3 where Grade II listed buildings are placed in the medium value category and the assets listed above are in the high value category.
North Yorkshire County Council Archaeologist (NYCC)	Noted that happy with the proposed methodology and scope of work. Confirmed that geophysical survey should be undertaken, and suggested Ground Investigation works should be monitored by a geoarchaeologist to assess the potential of paleoenvironmental remains around the River Ouse.	Geophysical survey undertaken as information incorporated into baseline and impact assessment (for full report see Appendix 9D). The Ground Investigation (GI) scope of works was shared with the NYCC Archaeologist and it was agreed that the limited GI proposed at this stage would offer little in supporting the development of a paleoenvironmental deposit model (or similar). However this will be reviewed again as and when any subsequent phasing of GI works are undertaken.
Historic England	Noted that scheme must consider impacts on designated assets, but that this should be proportionate to the assets significance. ZTVs should be used as part of the setting assessment to identify assets that might be impacted by the scheme, and noted that the works at Drax had the largest potential top result in setting impacts. Historic England guidance should be	A setting assessment was undertaken as part of the impact assessment. This considered temporary and permanent setting impacts on both designated and non-designated assets, and was undertaken in line with national guidance. Consultation was undertaken with stakeholders, and the heritage team also liaised with the LVIA team when examining

followed during the setting assessment, and the assessment should also take into account potential impacts with associated activities (such as construction/service and maintenance) upon perceptions and understanding of heritage.

Also noted that both North Yorkshire CC and East Riding Historic Environment Record should be consulted.

Impacts on non-designated assets should also be assessed, and these should be discussed with the Conservation Officers for the two local authorities (i.e., NYCC and Humber).

Potential changes to drainage should be examined as they may result in the dewatering of surrounding deposits, and the subsidence of buildings.

For the impact assessment, Grade II listed buildings and Registered Parks and Gardens should be considered High Value assets and not Medium Value assets.

Regarding levels of harm, 'less than substantial harm' can still be a level of harm, and this must be made clear.

Due to the sensitive nature of archaeological remains in the study area, an intense level of assessment is required, and high-level research questions should be set as part of the assessment.

setting impacts. ZTV data was used, and site visits were undertaken. The potential impact of drainage was also considered. Regarding the value of Grade II listed buildings and Registered Parks and Gardens, as outlined in Section 9.3 of this chapter, Table 9.3 is a guide that is used alongside professional judgement, assessment of significance and consultation to assign heritage values to assets. The assets are not automatically ascribed a value on the basis of their level of designation. NPPF (2021) paragraph 200 makes a distinction between Grade II listed buildings and 'assets of the highest significance' (i.e., scheduled monuments, protected wreck sites, grade I and II* listed buildings grade I and II* registered parks and gardens and World Heritage Sites). This distinction is built into Table 9-3 where Grade II listed buildings are placed in the medium value category and the assets listed above are in the high value

Assessment of the route included deskbased research as well as geophysical survey, which was undertaken across the majority of the route, (see Appendix 9D for full report), targeted for metal detecting survey of approximately 20 km of the alignment (see Appendix 9E for full report), and a review of LiDAR and aerial photographic data (Appendix 9C). Potential research questions were established in the mitigation section. These will be developed as part of a mitigation strategy to be developed prior to the excavation and recording that is expected pre-construction. These will be based on the current assessment as well as evaluation trenching that will form part of the pre-construction works.

category.

9.3.2.2 Additional Consultation

Table 9-2 summarises additional consultation undertaken with relevant statutory and non-statutory consultees in relation to archaeology and cultural heritage for the English Onshore Scheme and outlines how and where this has been addressed in subsequent chapters of the ES.

Table 9-2: Additional Consultation (Archaeology and Cultural Heritage)

Consultee	Nature of additional consultation	How and where addressed
Humber Archaeology Partnership (HAP)	Discussed the scheme background, as well as possible evaluation works that will be required pre-submission and pre-construction.	Geophysical survey and metal detector survey were undertaken as part of the EIA and design development stage (see Appendix 9D and 9.E for full reports), with the data collected incorporated into the baseline report and the impact assessment. Mitigation strategy will be developed in consultation with stakeholders including HAP and NYCC post-application/preconstruction.
North Yorkshire County Council Archaeologist (NYCC)	Discussed the scheme background, as well as possible evaluation works that will be required pre-submission and pre-construction.	Geophysical survey was undertaken as part of the EIA stage, with the data collected incorporated into the baseline report and the impact assessment (see Appendix 9D for full report). Mitigation strategy will be developed in consultation with stakeholders including HAP and NYCC pre-construction.
НАР	Email sent with a file note detailed proposed evaluation to be undertaken in the various route sections, as well as the phase when works would be undertaken (i.e. pre submission vs pre-construction).	Further discussion held regarding methodology for works required presubmission. HAP agreed works proposed with exception of metal detector surveys, and a meeting was arranged to discuss metal detector survey (see below).
NYCC	Email sent with a file note detailed proposed evaluation to be undertaken in the various route sections, as well as the phase when works would be undertaken (i.e. pre submission vs pre-construction).	NYCC agreed about the works proposed in the file note.
НАР	Meeting to discuss two-phase approach to metal detector survey.	Agreed two phase approach was possible. Phase one to cover approximately 20 km of alignment and target areas where previously recorded features (recorded through aerial photography and geophysical survey) could be multi-phase sites, and some of the blank areas.
НАР	Emailed HAP to ask about key reports that should be used as a basis for the EIA. HAP replied with a number of reports that would be of use, most of which cover Holderness.	Information from reports has been incorporated into the baseline report.
НАР	Email to provide update on geophysical survey and metal detector survey undertaken to date. Also discussed well preserved ridge and furrow earthworks identified as part of the walkover surveys to see if they would need to be avoided as they are associated with the shrunken medieval village of Gransmoor.	HAP agreed that the ridge and furrow did not have to be avoided, but that it would have to be recorded prior to a controlled strip, and reinstated post-construction. This will form part of the mitigation strategy.
East Riding of Yorkshire Council (ERYC) and Historic England	Virtual meeting to share details of the evolving design and discuss the potential impacts to built heritage assets through change to their settings during construction and operation.	No actions arising.
Selby District Council	Virtual meeting to share details of the evolving design and discuss the potential impacts to built heritage assets through change to their settings during construction and operation.	No actions arising.

9.3.3 Identification of Baseline Conditions

9.3.3.1 Desk Studies

The baseline is informed by collating data on known designated and non-designated heritage receptors from the following sources:

- East Riding Historic Environment Record (HER) for spatial and non-spatial data on heritage assets and previous archaeological investigations;
- North Yorkshire HER for spatial and non-spatial data on heritage assets and previous archaeological investigations;
- The National Heritage List for England (NHLE), held by Historic England, for designated assets;
- Local authority conservation area appraisal and management documents and their mapping;
- Historic landscape characterisation (HLC) mapping undertaken by local planning authorities;
- National Record of the Historic Environment (NRHE) held by Historic England;
- Aerial photographs held by Historic England, local authorities and other appropriate repositories and other readily available remote sensing results such as LiDAR data (the data analysed as part of this study can be found in full in **Appendix 9C**);
- Geological mapping and borehole information as held by the British Geological Survey;
- Documentary, cartographic and other resources as deposited within local studies libraries, county libraries and archives, including historic Ordnance Survey maps, tithe, estate and other maps, and other relevant primary sources held at East Riding Archives in Beverley and North Yorkshire Archives in Northallerton together with local studies library information;
- The first edition 6" OS map has been used to identify non-designated buildings that are still extant within the study area as potential heritage assets. Later maps have been used to inform selection of later potential heritage assets such as railways, WWII defences etc. where their date of inception post-dates the first edition. Later farms and agricultural buildings that are not identified in the HER or NHLE and that do not appear on the first edition map are not identified as heritage assets in this assessment due to their very low value and the resultant lack of potential of the proposed development to result in significant effects to assets of this nature.
- Data collected as part of the CCS scheme (Ref 9-21); and
- Data held by the Portable Antiquities Scheme.

9.3.3.2 Field Studies

A site walkover and visual appraisal was undertaken over a number of dates in October and November 2021, and January 2022. This walkover survey was targeted and did not cover all areas of the planning application boundary in detail due to elements such as ground conditions, and due to access being withheld. Views of the planning application boundary from the walkover survey can be found in **Appendix 9B**. The main considerations of the site walkover were:

- To visually inspect the area and assess the heritage assets, including their setting, that have the potential to be impacted by the proposed development;
- To identify non-designated built heritage assets not identified during desk-based research and identify areas with the potential to contain any previously unidentified archaeological or historical remain; and
- To record current land use, ground conditions, and visible evidence of ground disturbance to assess how current and former land use may have affected the archaeological potential of the site.

9.3.3.3 Assessment Guidance

This baseline assessment has been carried out in accordance with relevant technical guidance set out by the CIfA, Historic England and IEMA, as outlined in Section 9.2.6 above.

9.3.4 Assessment Method

9.3.4.1 Determining the Value of Heritage Assets

The value of a building, monument, area, site, place or landscape reflects its significance as a historic asset and therefore its sensitivity to change.

The NPPF (Ref 9-10) defines the significance of heritage assets as "The value of a heritage asset to this and future generations because of its heritage interest. Significance derives not only from a heritage asset's physical presence, but also from its setting." It also sets out criteria which should be considered when assessing the significance of cultural heritage assets, which include archaeological, architectural, artistic and historic values.

Certain types of heritage asset have a level of significance that justify official designation, such as scheduled monuments and listed buildings; however, the absence of designation does not necessarily mean heritage assets are of lower value or significance.

Professional judgement has been used to identify the value and significance of assets guided by legislation (Ref 9-1 and Ref 9-2), and national planning policy (Ref 9-10).

Table 9-3: Criteria for Determining the Value of Heritage Assets

Value	Guidelines
High	World Heritage Sites
-	Scheduled Monuments
	Grade I and II* listed buildings
	Registered battlefields
	Grade I and II* registered parks and gardens
	Conservation areas of demonstrable high value
	Non-designated heritage assets (archaeological sites, historic buildings, monuments, parks, gardens or landscapes) that can be shown to have demonstrable national or international importance
	Well preserved historic landscape character areas, exhibiting considerable coherence, time-depth or other critical factor(s)
Medium	Grade II listed buildings
	Conservation areas
	Grade II registered parks and gardens
	Conservation areas
	Non-designated heritage assets (archaeological sites, historic buildings, monuments, park, gardens or landscapes) that can be shown to have demonstrable regional importance
	Averagely preserved historic landscape character areas, exhibiting reasonable coherence, time-depth or other critical factor(s)
	Historic townscapes with historic integrity in that the assets that constitute their make-up are clearly legible
Low	Locally listed buildings
	Non-designated heritage assets (archaeological sites, historic buildings, monuments, park, gardens or landscapes) that can be shown to have demonstrable local importance
	Assets whose values are compromised by poor preservation or survival of contextual associations to justify inclusion into a higher grade
	Historic landscape character areas whose value is limited by poor preservation and/ or poor survival of contextual associations
Negligible	Assets identified on national or regional databases, but which have no archaeological, architectural, artistic or historic value
	Assets whose values are compromised by poor preservation or survival of contextual associations to justify inclusion into a higher grade

Value	Guidelines
	Landscape with no or little significant historical merit

9.3.4.2 Determining the Magnitude of Impact

The method for determining the magnitude of impact to heritage assets follows the same process for both construction and operational impacts and is set out in **Table 9-4**.

Impacts may arise during construction or operational activities and can be temporary or permanent. Permanent impacts could entail the removal of buried archaeological features; temporary impacts may comprise construction activities within the setting of a heritage asset. The magnitude of impact arising from construction and operational activities considers mitigation measures which have been embedded within the EOS as part of the design development process.

Table 9-4: Criteria for Determining the Magnitude of Impact

Impact	Guidelines
High	Changes such that the heritage value of the asset is totally altered or destroyed. Comprehensive change to elements of setting that would result in harm to the asset and our ability to understand and appreciate its heritage significance
Medium	Change such that the heritage value of the asset is significantly altered or modified. Changes such that the setting of the asset is noticeably different, affecting significance and resulting in changes in our ability to understand and appreciate the heritage value of the asset.
Low	Changes such that the heritage value of the asset is slightly affected. Changes to the setting that have a slight impact on significance resulting in changes in our ability to understand and appreciate the heritage value of the asset.
Negligible	Changes to the asset that hardly affect heritage value. Changes to the setting of an asset that have little effect on significance and no real change in our ability to understand and appreciate the heritage value of the asset.

9.3.4.3 Significance of Effect

The assessment to classify the effect, having taken into account any embedded mitigation, is determined using the matrix at **Table 9-5**.

The effect to heritage assets is determined by cross-referencing the value of the asset with the magnitude of impact it is likely to experience as a result of the EOS. Effects can be beneficial, neutral or adverse. Major and moderate effects are considered to be significant in accordance with EIA practise. Minor and negligible effects are considered to be not significant.

Negligible/ Minor

Negligible

Magnitude of Impact Negligible Low Medium High High Negligible/ Minor Moderate Major Major Heritage Asset Medium Negligible Minor Moderate Major Minor Low Negligible Negligible Moderate

Table 9-5: Matrix Used to Determine the Significance of Potential Effects

9.3.4.4 Cumulative Effects

Negligible

The cumulative effects of the EOS in conjunction with other proposed developments in the vicinity of the EOS have been assessed. This has been done qualitatively through consideration of any proposed developments with planning consent secured or those identified in Chapter 17: Cumulative Effects that could have impacts on cultural heritage, including impacts from changes to an asset's setting.

Negligible

The cumulative assessment has considered the presence of the EOS in combination with the cumulative schemes (consented and application schemes) where there is a potential for significant cumulative cultural heritage effects.

9.3.4.5 Archaeological Potential

Assessment of the archaeological resources draws on three factors:

Negligible

- An assessment of the potential for the survival of archaeological deposits within the planning application boundary based on an evaluation of previous ground disturbance;
- An assessment for the potential for archaeological deposits to exist within the planning application boundary based on the results of the baseline study; and
- An assessment of the significance of known and potential archaeological assets within the planning application boundary, as well as within the defined study area.

The level of disturbance to buried archaeological remains caused by previous development has been assessed based on available data listed above, with particular attention paid to previous archaeological evaluations and excavations in the study area.

The potential for an area to contain archaeological remains is rated 'high', 'moderate, 'low', 'negligible', or 'unknown'. This rating is based on an understanding of the archaeological resource within the study area and its wider context. This includes the number, proximity and state of preservation of known and predicted archaeological/historical sites as well as find spots recorded on both the HER and through the metal detector survey within the planning application boundary and its surrounding study area.

9.3.5 Assumptions and Limitations

Heritage data have been obtained from third party sources and the assessment of effects is based on the accuracy of this information. Although data from the HERs and the NHLE are generally reliable, on occasion asset data may be omitted, incorrectly named, have incorrect coordinate data, or be out of date.

Geophysical survey (Appendix 9D) undertaken to enhance the baseline study and inform the impact assessment, was carried out within all available and accessible land along the cable route corridor and associated sites such as the proposed converter and known construction compounds. Access was not granted to all land within the planning application boundary and therefore there are no survey results for some areas. In addition, vegetation cover across some fields within the planning application boundary was too dense and precluded survey, although data collected and published as part of the DCO application for the CCS scheme did provide some geophysical survey results for missing areas. However, overall access for the geophysical survey was good with about 90% of the English Onshore Scheme surveyed as approximately 385 hectares of 420 hectares was surveyed successfully.

The impact assessment assumes that construction would result in the permanent and total loss of any heritage assets contained within the Scheme's footprint.

9.4 Study Area

9.4.1 Overview

The study area for the English Onshore Scheme (see **Figure 9-1**) follows the route of proposed underground direct current (DC) cables from the landfall at Fraisthorpe Beach to the proposed converter station site near the existing Drax 400 kV Substation in Selby. In broad terms, this cable route is approximately 69 km long, with approximately 67 km of underground DC cable from the landfall to the River Ouse (in East Riding of Yorkshire Council) and approximately 2 km of underground DC cable from the River Ouse to a converter station on agricultural land adjacent to Drax Power Station in Selby District Council. The converter station is connected to the existing electricity network via an underground alternating current (AC) cable route.

A study area of 0.5 km radial distance from the planning application boundary has been used to provide detailed baseline information for the assessment.

The study area has been divided into four main sections, running east to west. Section 1 includes the area from Landfall to Bainton, Section 2 includes the area from Bainton to Market Weighton. Section 3 includes the area from Market Weighton to the River Ouse and finally, section 4 includes the area from the river to the Drax power station.

The planning application boundary has also been broken up by fields, with all fields numbered sequentially from 1 at the landfall on the east, to 224 near Drax in the west. The exception to this are fields 225-244 which are located on a re-routed part of the proposed DC route in Section 1 near Gransmoor in the east. These fields are illustrated in **Figure 9-2**.

Where assets have been previously recorded, the site identifier used is that provided by Historic England (for designated assets) or the NYCC or HAP HER reference for non-designated assets. Previously unrecorded sites which have been identified as part of the scheme assessment through geophysical survey, aerial photography, LiDAR, metal detecting survey, or map regression have been given a site identifier with an AECOM prefix (i.e. AECOMXXX).































